Masahide KURITA*: Some Notes on the *Rhododendron* Plants from Japan VI. Variation in Loculus of Ovary

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It has already been reported by several researchers that some species of the genus *Rhododendron* show a variation in a number of their sepal, petal and stamen. There are, however, few studies concerning with a numerical variation of loculus in an ovary. It is well known that a floral leaf of Japanese species in the subgenus Hymenanthes (BLUME) ENDLICHER is based upon the number of 5 or 7, and that all the species show an axile placenta.

The author has made a study on the variation in a number of loculus in the ovary of certain species belonging to the subgenus. The result will be noted in this paper.

Material and Method The species used is *Rhododendron metternichii* SIEB. et ZUCC. var. *hondoense* NAKAI, of which a floral leaf is accepted to have the basic number of 7. The material plant was cultivated at a garden in Akatsuki-dai, Yokkaichi city. There were observed all the ovaries of flowers from 3 inflorescences of the plant. One inflorescence (called A-infl.) has 16 flowers, other (B-infl.) 15 flowers and still other (C-infl.) 14 flowers. All the ovaries were transversely sectioned at their middle part. The sections were observed with a microscope of low magnification, loculi being enumerated.

Observation The result of observation is shown in table 1. In the A-inflorescence, an ovary with 7 loculi (Fig. 1) is found in only one flower. It is much less than the ovaries with 8 and 9 loculi (Fig. 2). All the flowers from the A-inflorescence each have 7 petals and 14 stamens with the exceptions of the 5 flowers noted below. From among the 8 flowers with 9-loculused ovary, 3 each

Table 1.

	Inflorescence	No. of loculus in ovary 10	9	8	7	6
No. of flower	A	0	8	7	1	0
	B	0	3	8	4	0
	C	0	1	6	7	0
	Total	0	12	21	12	0

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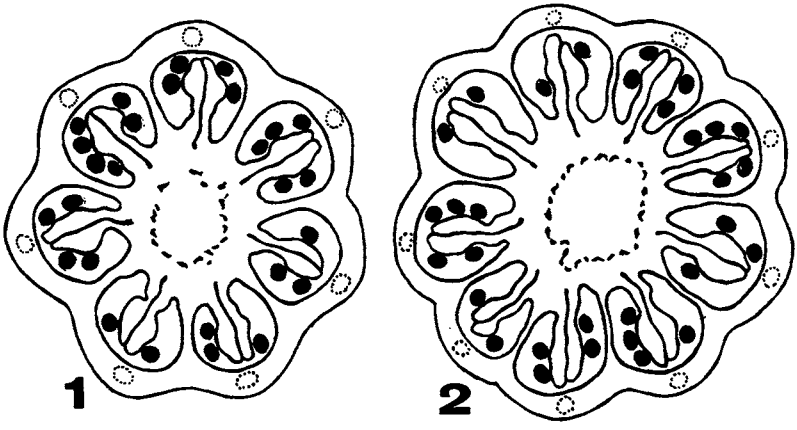
have 8 petals and 14 stamens. From among the 7 flowers with 8-loculused ovary, one has 8 petals and 15 stamens, and another has 8 petals and 16 stamens.

In B-inflorescence, the flowers with 8-loculused ovary are much more than any other flower. All the flowers have 7 petals and 14 stamens with the excep-



Figs. 1 and 2. Ovary as seen in cross-sectional view.
1, having 7 loculi. 2, having 9 loculi. × 18

tions of 2 flowers from among the 8 flowers with 8-loculused ovary. Those 2 each have 8 petals and 14 stamens.

In C-inflorescence, the flower with 9-loculused ovary is only one in number, being much less than the flowers with 8- and 7-loculused ovary. All the flowers from this inflorescence each have 7 petals and 14 stamens.

Discussion There were examined all the flowers born in 3 inflorescences. As shown in table 1, a dominator is the flowers with 9 and 8 loculi in the A-inflorescence, the flowers with 8 in the B, and the flowers with 8 and 7 in the C. The dominant flowers may be said to be slightly different from inflore-scence to inflorescence.

As mentioned already. the present species has been reported to have 7 as the basic number of floral leaf. From among 45 flowers observed, the flowers with 8 petals is 7 (15.6%) in number and the flowers with 15 and 16 stamens are 2 (4.4%). Contrary to this low frequency in petal and stamen, the flowers with 8- and 9-loculi in ovary are 33 (73.3%) in number. Then, it is considered that the variation is more easily occurred in loculus than in petal and stamen.

Out of 45 flowers observed, 38 each have 7 petals and 14 stamens. The 38 flowers consist of 9 members (23.7%) with 9 loculi in ovary, 17 members (44.7%)

with 8 loculi and 12 members (31.6%) with 7 loculi. Judging from the above result, it is not reasonable to say that the present plant belongs to the series with 7 as the basic number of floral leaf, as far as a carpel is concerned.

References

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摘　　要

ホンシャクナゲ（花葉の基本数7）の1個体で，その子房の室が観察，調査された。室数は7～9で，花序により変異の様子がわずかにことなる。子房の室数の増加は，花弁やおしべの数の増加より頻度が高い。本材料では8室子房の頻度が他の子房のそれよりたいへん高く，心皮に関する限り，その基本数は7とはいいがたい。